American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science &Technology (FST)

Spring 22 23

Section: B

Software Quality Assurance and Testing

MOBILE HEALTH APPLICATION

A Report submitted

By

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Department of Computer Science

Checked By Industry Personnel

Name:

Designation:

Company:

Sign:

Date: 3 MAY, 2023

Software Test Plan

for

<MOBILE HEALTH APPILACTION >

Version 1.0 approved

Prepared by <FARHAN, ZUBAIR, NITU >

AMERICAN INTERNATIONAL UNIVERSITY –BANGLADESH

3 MAY, 2023

Checked By Industry Personnel

Name:

Designation:

Company:

Sign:

Date:

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Revision History

Revision	Date	Updated by	Update Comments
0.1	2023.04.04	ZUBAIR CHOWDHURY	Project Discussion
0.2	2023.04.19	PURAVI DEBNATH NITU	System Features & Quality Attributes Defined
0.3	2023.04.04	FARHAN HASIN	System Interface & Requirements Defined
0.4	2023.04.04	PURAVIDEBNATH NITU	Test Case Design
0.5	2023.04.04	FARHAN HASIN	Project Responsibility & Schedule Diagram
0.6	2023.04.04	ZUBAIR CHOWDHURY	Risk Management Analysis
0.7	2023.04.04	FARHAN HASIN	Reference's added & UI updated

1. TEST PLAN IDENTIFIER:RS-MTP01.3

2. REFERENCES

- Software Quality And Testing power point slides
- For staffing and training needs: https://allogy.com/how-leading-hospitals-are-using-mobile-apps-r-training-and-better-patient-care/

- https://www.google.com/search?sxsrf=APwXEddlGKv5OuFbtjeQn0YBcnb_JyYpOA:1682609374436&q=testing+schedule+for+mobile+health+app&tbm=isch&source=univ&fir=3jEi2xNfN7DZBM%25
- https://www.ftc.gov/business-guidance/resources/mobile-health-apps-interactive-tool
- https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/3_

- For writing Test Case: https://www.geeksforgeeks.org/software-testing-test-case

- For Quality Attributes: http://shorturl.at/CMOV7/

- https://www.geeksforgeeks.org/software-engineering-software-characteristics/

3. INTRODUCTION

3.1 Background to the Problem

Background to the Problem: If we look around the country, we can see that many people face difficulties regarding getting medical services or care. Some cannot visit at proper time to the hospital and some cannot go hospital because of physical condition. Mobile Health Application will help them to get many services from mobile staying at home.

3.2 Solution to the Problem

Solution to the Problem: Mobile Health Application has the potential to be a great solution in today's world because they offer advantages that can improve healthcare delivery and patient outcomes. We will also get benefits from it.

4. REQUEIREMNT SPECIFICATION

4.1 System Features

1.Service provider/Nurse & Ambulance Feature

4.1.1.1 Functional Requirements

1.1 Register to the website to make their own account
1.2 Login to the website
1.3 Logout from the system
1.4 Can change the password
1.5 Can see the service request
1.6 Can decline any request if required
1.7 Can contact user
1.8 Can add own location information
1.9 Can contact system admin

Priority Level: High
Precondition: admin must have valid user name, password

2.Admin Feature

4.1.1.2 Functional Requirements

1.10Register to the website to make their own account
1.11Login to the website
1.12Logout from the system
1.13Can change the password
1.14Can see all provided services
1.15Can delete any service provider
1.16Can view all service providers
1.17Can see user feedback to improve the system

Priority Level: High

Precondition: Nurse/ doctor must have valid user name and password

3.User Feature

4.1.1.3 Functional Requirements

1.18Register to the website to make their own account
1.19Login to the website
1.20Logout from the system
1.21Can change the password
1.22Can give feedback to the website
1.23Can delete own account
1.24Can contact system admin
1.25Can add own location information
1.26Can update schedule

Priority Level: High

Precondition: user must have valid user name and password

4.2 System Quality Attributes

Usability: This can be measured in terms of ease of use. The application should be user-friendly.Usability means how easily user (patient) can use this system and get services. If the system is notuser friendly, then patient may lose their interest to find solution here.
Priority Level: High

Integrity: Integrity this factor deals with the system security that is, to prevent access tounauthorized persons. This attribute is most important to provide security. When patient will wantto pay in online, the transition process should be secured.
Priority Level: High

Flexibility: It is used as an attribute of various types of system. Users can readily access the software and modify it as often as necessary to meet their demands. The program is set up to accommodate user demands, and users have little trouble understanding changes.
Priority Level: High

Performance: Performance specifications outline how quickly or how well this system must execute particular functionalities. timeliness, capacity, throughput, and speed. It also discusses how the system will function worse if it is overloaded (when multiple users are doing transection at once).
Priority Level: High

Portability: The System should be so simple transform one medium to another.
Priority Level: Medium

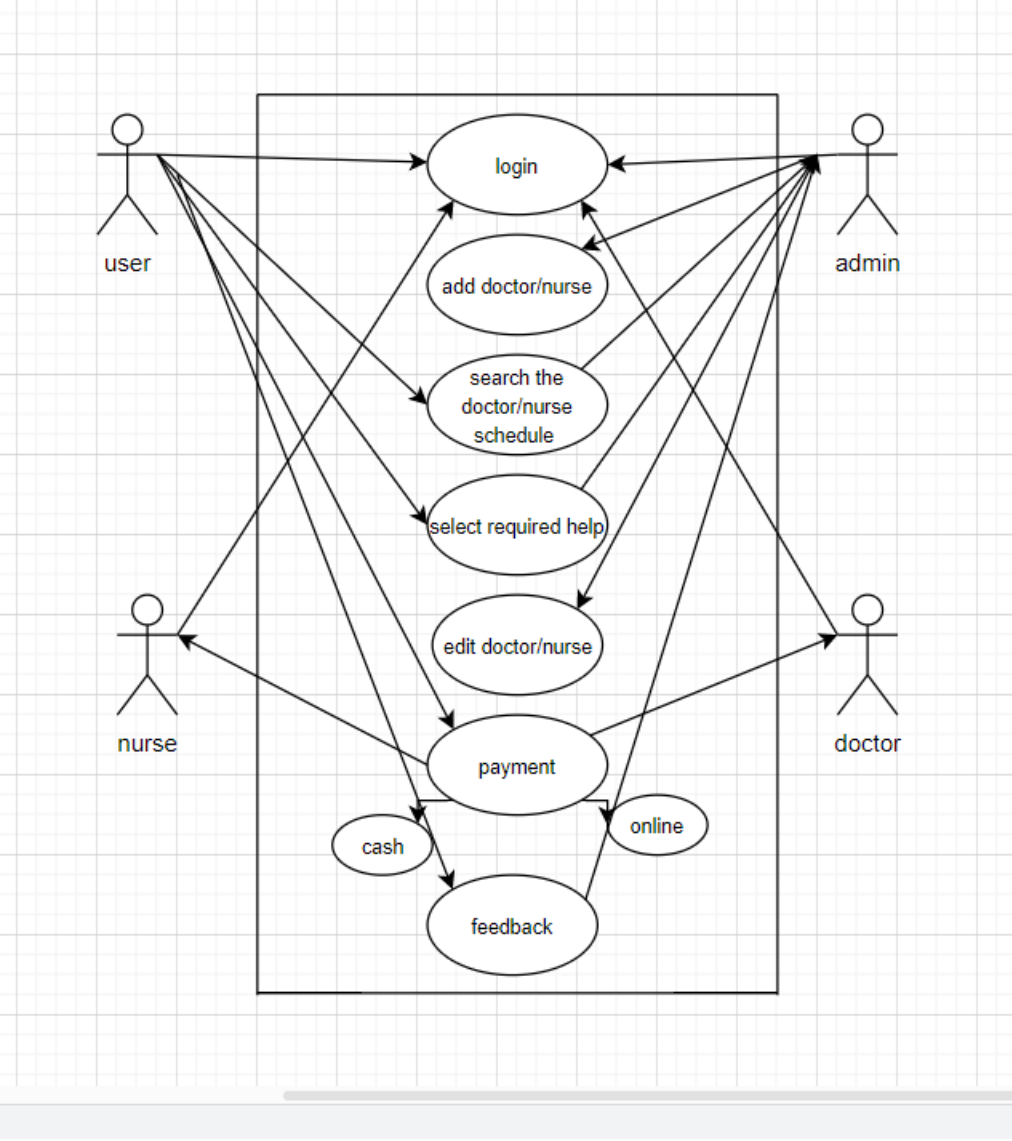
Efficiency: The user will experience decreased performance if the system is using all of the resources, making it inefficient. Real-time applications cannot be employed with an inefficient system. It should be easier to use because users may occasionally utilize it in an emergency.
Priority Level: High

Maintainability: The system will be well documented and it will be designed to be easier to maintain. The system shall not be shut down for maintenance more than once in 24 hours. It should be inexpensive and simple to maintain.
Priority Level: High

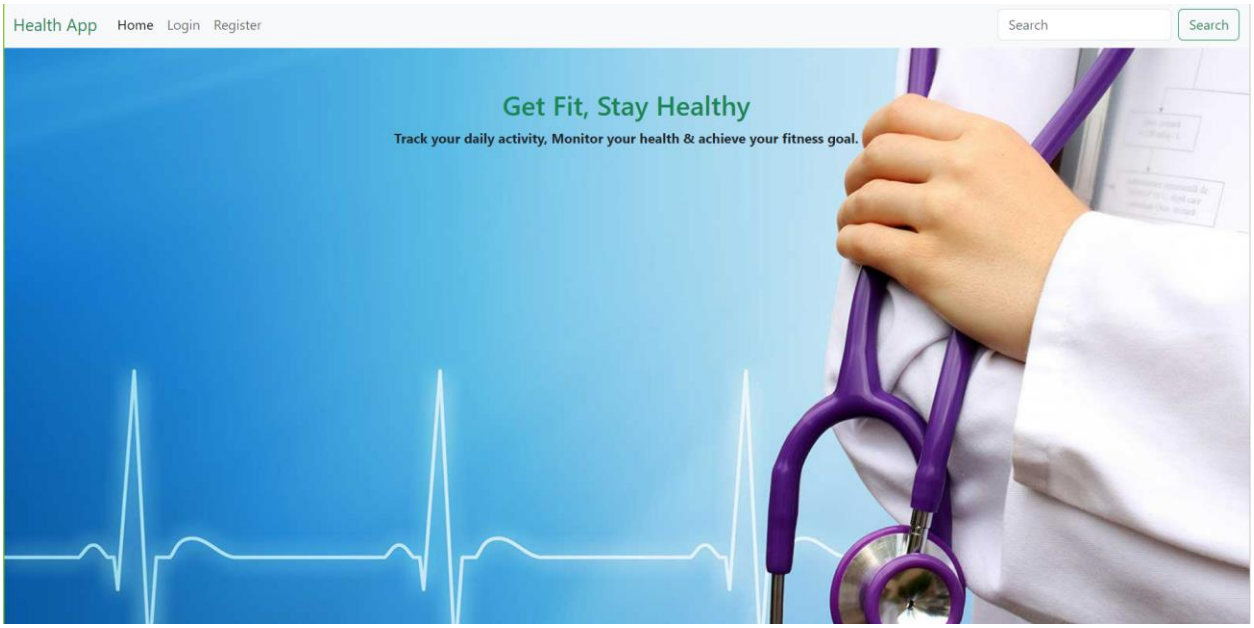
Testability: If the System face any error or defect then it must be able to test for that bug or error.
Priority Level: High

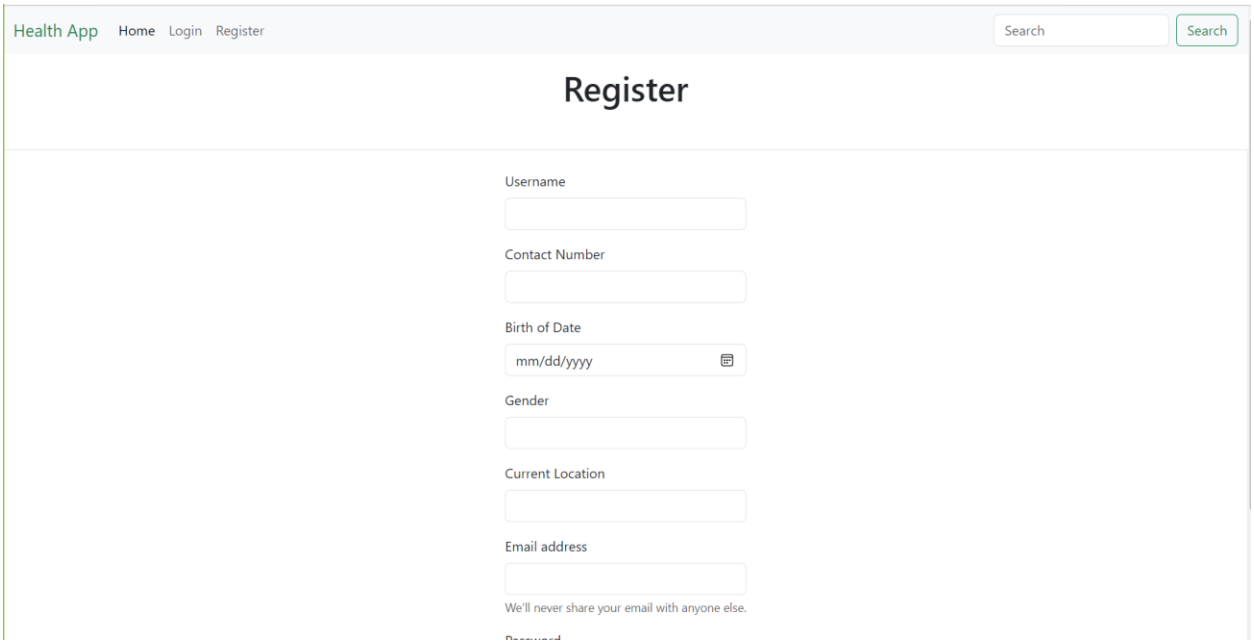
4.3 System Interface

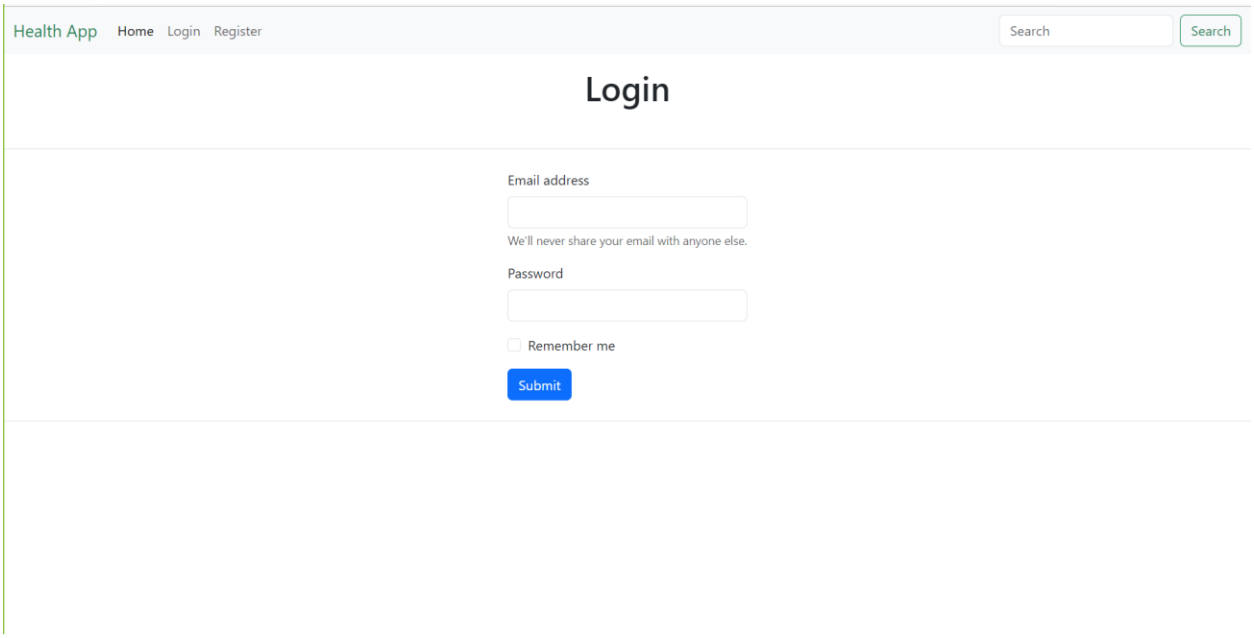
USER DIAGRAM

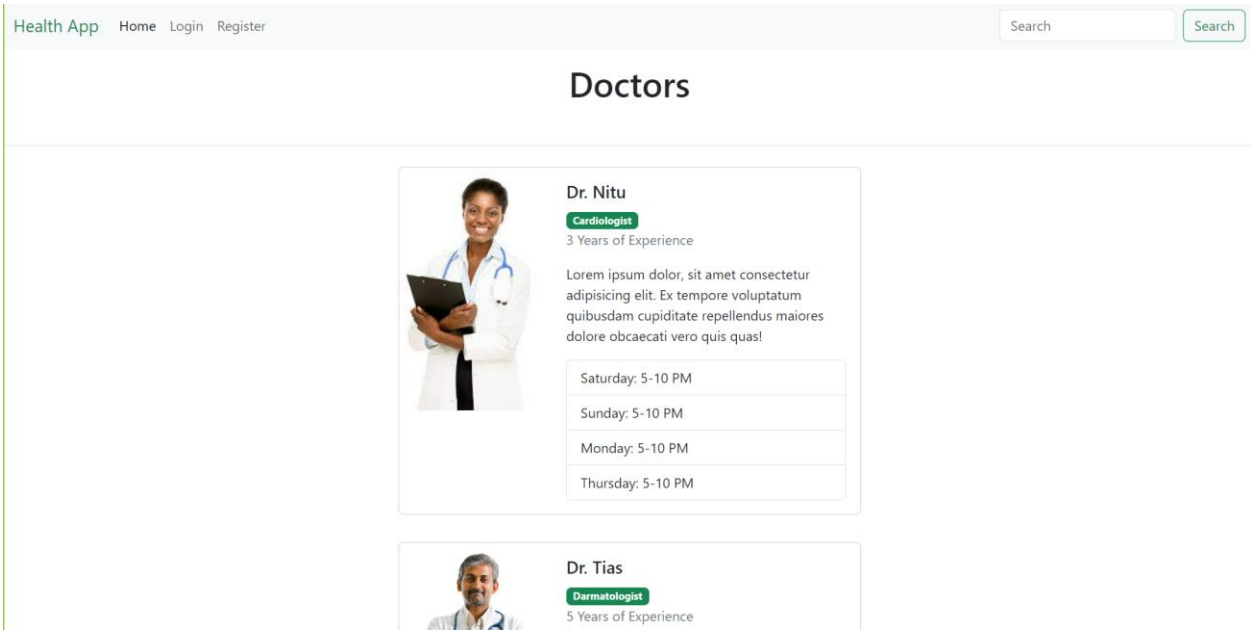


INTERFACE


Health App
Home
Login
Register
Search
Search
Get Fit, Stay Healthy
Track your daily activity, Monitor your health & achieve your fitness goal.


Health App
Home
Login
Register
Search
Search
Register
Username
Contact Number
Birth of Date
mm/dd/yyyy
Gender
Current Location
Email address
We'll never share your email with anyone else.


Health App
Home
Login
Register
Search
Search
Login
Email address
We'll never share your email with anyone else.
Password
Remember me
Submit


Health App
Home
Login
Register
Search
Search
Doctors
Dr. Nitu
Cardiologist
3 Years of Experience
Lorem ipsum dolor, sit amet consectetur adipisicing elit. Ex tempore voluptatum quibusdam cupiditate repellendus maiores dolore obcaecati vero quis quas!
Saturday: 5-10 PM
Sunday: 5-10 PM
Monday: 5-10 PM
Thursday: 5-10 PM
Dr. Tias
Darmatologist
5 Years of Experience

Health App Home Login Register Search Search

Nurses

Puravi

Registered

3 Years of Experience

Dhaka Nurse Training Institution

Contact: 0148458454

- Saturday: 5-10 PM
- Sunday: 5-10 PM
- Monday: 5-10 PM
- Thursday: 5-10 PM

Ritu

Registered

5 Years of Experience

Gazipur Nurse Training Institution

Health App Dashboard Logout

You have been logged out.

Logout

4.4 Project Requirements

The project testing time will be about for 6 months. We will be arranging everything in that order.

Estimating budget: the cost calculation for the Mobile Health Application project in Agile Method for a duration of 6 months is as follows:

Product Owner: 1000tk/hour x 24 weeks x 20 hours per week = 48,0000 tk

Scrum Master: 900tk/hour x 24 weeks x 20 hours per week = 43,2000tk

Developers: 800tk/hour x 3 developers x 24 weeks x 20 hours per week = 115,2000tk

Tester: 700tk/hour x 24 weeks x 20 hours per week = 33,6000tk

Designer: 900tk/hour x 24 weeks x 20 hours per week = 51,2000tk

Total Cost: 291,2000tk

Revenue:

Based on these assumptions, here's the calculation for the revenue of the Mobile Doctor Application project for a 6-month duration:

Estimated Number of Clients: 10,000

Revenue per Client: 50tk per month

Project Duration: 6 months

Calculation:

Total Revenue for 1 Month: 10,000 clients x 50tk/month = 500,000tk
Total Revenue for 6 Months: 500,000tk x 6 = 3,000,000tk

5. FEATURES NOT TO BE TESTED

a.Language: As English is an international language, it will be set automatically. We will not be changing it. Everyone will be able to understand it easily. If we see that a lot of people are facing difficulties to understand and use the language then we will think about other languages. But right now we don't need to test the feature.

b. Cosmetic Features: Color scheme or font style may not have as much impact on the overall functionality of the application compared to critical features such as data privacy and security, medication reminders, or emergency alert systems.

6. TESTING APPROACH

6.1 Testing Levels

Testing at the Unit, System, Integration levels will be done for the "Security Application." The majority of the testing, however, will be carried out by the test manager with the assistance of the development teams due to the budgetary and timeline restrictions.

Unit Testing: Unit testing is sometimes referred to as white box testing and individual testing. The developer compiles a module after it is complete to ensure that it is usable. Once a developer completes the design of any page, this testing will occur in our system.

Control Flow Testing: It searches for bugs caused by incorrectly designed program code. A white box is being used for testing. The developer will select a specific area of a sizable program in our solution to build the testing path and Test cases, which are represented by the program's control graph. Together, the nodes and edges make up the Control Flow Graph.

Integration Testing: The purpose of integration testing is to validate that all of the modules are communicating properly. With assistance from the individual developers as needed, it is carried out by the test manager and development team leader. When our system's developers create two or more modules, the testing team will combine these modules and look for incompatibility.

System Testing: This testing is carried out following the conclusion of the integration testing. Here, the operation of the entire system is examined, frequently from the perspective of the client. It is being tested within a black box. The testing group will incorporate the whole system into ours. After that, the system would be put together, and any issues would be corrected right away.

Acceptance Testing: The examination is official. This testing process confirms that the customer's demand is fully functional. Customers and end users will test the entire system and provide feedback.

6.2 Test Tools

The testing methodologies used by the tools vary, and as a result, their feature sets do as well.

Unit Testing: Unit testing is a type of testing that involves testing specific software modules or functionalities. Its major goal is to test each component or function. A unit is the smallest component of an application that can be tested. It frequently only has one output and one or a few inputs. For that, we must mandate the use of Selenium as a software testing tool.

Integration Testing: We need to use Selenium as our testing tools for integration testing because it is a type of testing intended to look at how different components work together, how they interact, how subsystems come together to form a single standard system, and how well the code complies with the requirements. These tools are web-based.

System Testing: System testing ensures that a program operates as intended. This process, a type of "black box" testing, is concerned with the functionality of an application. For instance, system testing might look at whether each type of user input throughout the application produces the expected output. Here, selenium will be used to test the system. Selenium is a codeless automated testing tool that provides alternatives for testing our website automatically. Selenium automation provide simple, efficient management and execution of test cases.

Testing tools we used for testing are given below:

- Chrome Driver: We have installed it to complete our program
- Selenium Web Driver: Selenium is mandatory for the testing approach.
- MySQL: Need this for database connection.
- Postman.

6.3 Meetings

We arranged 2 meetings in Monday for discussing about the project. There our mentor gave us some instructions what can be added or how the project will look appropriate. We discussed our project with QA engineer Ehsanul Alam Sabbir sir. There we conducted our meeting for almost 40 minutes for the first time. Then again we arranged a meeting after completing all the things. Here our SQA engineer gave us some important instructions on QA engineer. They are:

As a QA Engineer, if you find a critical bug at the time of release, you must take the following steps:

1. Prioritize the Bug: Identify the severity and impact of the bug on the system and users. If it has a significant impact, label it as "Critical" and escalate it to the development team and stakeholders.

2. Document and Replicate: Document the steps to replicate the bug and provide any additional information, such as browser details or system configurations. This will help the development team to have a clear and concise understanding of the issue.

3. Communicate: Communicate the issue to the development team, project manager, and stakeholders immediately. Ensure that everyone is aware of the problem to prevent any further damage or impact.

4. Evaluate the Risks: Evaluate the potential risks that might occur from releasing the product with the critical defect. Work with the project manager and stakeholders to make an informed decision on whether to release the product, hold off release, or roll back to the previous version.

5. Work with the Development Team: Work with the development team to resolve the issue as soon as possible. Provide them with all the necessary details and collaborate with them to come up with a fix and regression test plan.

6. Regression testing: Perform regression testing to ensure that the fix does not impact any other part of the system.

7. Validate the Fix: Once the development team fixes the bug, validate the fix and ensure that the issue is resolved before release.

If a critical bug is found during the release, QA Engineers should prioritize the bug, document and replicate it, communicate the issue, evaluate the risks, work with the development team, perform regression testing, and validate the fix before releasing the product. By following these steps, QA Engineers can help ensure that the product is released with the best possible quality.

A good QA analyst is always looking for ways to break the system, so that they can make it stronger

As a QA Analyst, here are some useful tips to keep in mind:

Understand the requirements: It is essential to have a clear understanding of the requirements before starting the testing process. Ensure that you have access to the latest version of the requirements document and have read it thoroughly.

Create test cases: Based on the requirements, create test cases that cover all possible scenarios. Ensure that your test cases are easy to understand, repeatable, and cover both positive and negative scenarios.

Test early and often: It is best to test early in the development process, as it helps to catch defects early and reduces the cost of fixing them. Test as often as possible, after each build or deployment.
Keep good records: Keep a record of all the defects you find, along with the steps to reproduce them. This will help developers to understand the issue and fix it quickly.

Communicate effectively: Effective communication is essential in any testing process. Ensure that you communicate your findings clearly and concisely, using appropriate tools and formats.

Collaborate with the team: Collaborate with the development team, product owners, and stakeholders throughout the testing process. This will help to ensure that everyone is on the same page and that issues are resolved quickly.

Stay up to date: Keep up to date with the latest testing tools, techniques, and methodologies. Attend conferences, read blogs and articles, and participate in online forums to stay informed.

Be flexible: Be open to change and be willing to adapt to new testing processes and methodologies as required.
By following these tips, you can ensure that your testing process is effective, efficient, and delivers high-quality results.

7. TEST CASES/TEST ITEMS

1. Log in

Project Name: mobile health application			Test Designed by: ZUBAIR CHOWDHURY	
Test Case ID: Login_01			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: FARHAN HASIN	
Module Name: Login			Test Execution date: 26.04.2023	
Test Title: verify login with valid username and password				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to the Login section 3. Enter valid Username 4. Enter password 5. Click on the "Login" button	Username: nitu_07 Password: 43769	Login Successful	As expected,	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

2. Registration

Project Name: mobile health application			Test Designed by: PURAVI DEBNATH NITU	
Test Case ID: Registration_02			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: FARHAN HASIN	
Module Name: Registration			Test Execution date: 26.04.2023	
Test Title: Registration with valid Username, Email, Contact no, DOB, Gender, Current location and password.				
Description: Test website Registration page				
Precondition (If any): User must fill up all the input field				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click on the "registration" button. 3. Enter all information, 4. Click "Submit" button	Username: dhubro_11 E-mail: dhubro123@gmail.com Contact NO:01709811122 DOB: 05-08-0000 Gender: male Location: Dhaka Password:50899	Registration successful	As expected,	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

3.Log out:

Project Name: mobile health application			Test Designed by: FARHAN HASIN	
Test Case ID: Login_03			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: ZUBAIR CHOWDHURY	
Module Name: Logout			Test Execution date: 26.04.2023	
Test Title: verify logout option				
Description: Test website logout option				
Precondition (If any): Must have account on this website and must logged in to the website.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Log in the website 3. Click on the "Logout" button		Logout successful	As expected,	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

4.Change Password

This Test case will check if the change password feature is working accurately or not.

Project Name: mobile health application			Test Designed by: PURAVI DEBNATH NITU	
Test Case ID: ChangePassword_04			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: ZUBAIR CHOWDHURY	
Module Name: Update Password			Test Execution date: 26.04.2023	
Test Title: Can change the password from user profile				
Description: Test password is updated or not				
Precondition (If any): User must login the account				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the profile 2.Enter update password 3.Input old password. 4.Input new password. 5.Confirm new password. 3.Click the "change password" button.	New Password:%dh123%	Password update successful	As expected,	Pass
Post Condition: The updated password stored in the database.				

5.Available Nurses

The test case will test whether the user is able to see the available medical assistant near their location.

Project Name: mobile health application			Test Designed by: PURAVI DEBNATH NITU	
Test Case ID: Nurse_05			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: ZUBAIR CHOWDHURY	
Module Name: View Available Nurse			Test Execution date: 26.04.2023	
Test Title: Show all available Nurses to a nearby location with their detailed information				
Description: Test all Nurses to see if they are visible or not.				
Precondition (If any): User must login and select the location & give info require medical support.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2.Login to the website 3.Select the location 4.See all available Nurses	Select location & require medical support.	Able to see the list of Nurses	As expected,	Pass
Post Condition: The data stored in the database.				

6.Nurse's status

Project Name: mobile health application			Test Designed by: ZUBAIR CHOWDHURY	
Test Case ID: Login_06			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: PURAVI DEBNATH NITU	
Module Name: Nurses status			Test Execution date: 26.04.2023	
Test Title: Show the Nurses available or not.				
Description: Nurses status.				
Precondition (If any): Nurses must register according their medical service expertise into the database.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to the check Nurses status 3. In search box write a medical need. 4. Click on the "search" button	Dialyses specialist	Show the Nurses list with availability.	As expected,	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

7.Available Ambulances

The test case will test whether the user is able to see the available medical assistant near their location.

Project Name: mobile health application			Test Designed by: PURAVI DEBNATH NITU	
Test Case ID: Nurse_07			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: ZUBAIR CHOWDHURY	
Module Name: View Available Ambulances			Test Execution date: 26.04.2023	
Test Title: Show all available Nurses to a nearby location with their detailed information				
Description: Test all Ambulances to see if they are visible or not.				
Precondition (If any): User must login and select the pickup location & destination.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2.Login to the website 3.Select the location 4. Select the destination 4.See all available Ambulances	Select pickup location & destination	Able to see the list of Ambulances	As expected,	Pass
Post Condition: The data stored in the database				

8.Ambulances status

Project Name: mobile health application			Test Designed by: FARHAN HASIN	
Test Case ID: Login_08			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: PURAVI DEBNATH NITU	
Module Name: Ambulances status			Test Execution date: 26.04.2023	
Test Title: Show the Ambulances available or not.				
Description: Ambulances status.				
Precondition (If any): Must set pickup location and Destination.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to the check Ambulances status 3. Click on the "search" button	Select pickup location & destination	Show the Ambulance list with availability.	As expected,	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

9.Available Medicine

Project Name: mobile health application	Test Designed by: FARHAN HASIN
Test Case ID: Medi_Status_10	Test Designed date: 26.04.2023
Test Priority (Low, Medium, High): High	Test Executed by: ZUBAIR CHOWDHURY
Module Name: View selected Medicine	Test Execution date: 26.04.2023
Test Title: Show all available selected Medicine to a nearby location with their detailed information	
Description: Test all selected Medicine to see if it Available or Out of stock.	
Precondition (If any): User must login and select the require Medicine, set deliverylocation	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2.Login to the website 3.Select the delivery location 4. Select the require Medicine 5. Click on “Order” button	Select delivery location	Able to see the status of Order	As expected,	Pass
Post Condition:				

10.Payment

Project Name: mobile health application			Test Designed by: PURAVI DEBNATH NITU	
Test Case ID: Payment_11			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: FARHAN HASIN	
Module Name: Payment Session			Test Execution date: 26.04.2023	
Test Title: Show the payment system				
Description: Payment Session				
Precondition (If any): User must have to login, use service and add a online payment gateway service for payment.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to website. 2. Login website. 3. Select needed support. 4. Click the "Finish" button 5. Select added payment system 6. Enter the amount 7. Complete payment			As expected,	Pass
Post Condition: User is validated with database and successfully done the Payment. The Payment session details are logged in the database.				

11.Feedback

Project Name: mobile health application			Test Designed by: ZUBAIR CHOWDHURY	
Test Case ID: feedback_12			Test Designed date: 26.04.2023	
Test Priority (Low, Medium, High): High			Test Executed by: PURAVI DEBNATH NITU	
Module Name: Feedback			Test Execution date: 26.04.2023	
Test Title: Show the Feedback of services				
Description: Feedback Session				
Precondition (If any): The user must have to log in and must use services				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to website. 2. Login website. 3. Use any services 4. Give Feedback 5. click on the "Submit" button			As expected,	Pass
Post Condition: User is validated with database and successfully done the Payment. The Payment session details are logged in the database.				

8. ITEM PASS/FAIL CRITERIA

a.Login: The application will have a login page. There will be username and password. User has to give proper username and password to login to the system. After submitting the information of username and password, if the user can able to the homepage then we can say that the test case is passed. Otherwise, the test case will fail.

b.Register: There will be an option of register. By clicking the register option there will be options of username, password, gender, address, date of birth. The user has to fill up all these options. There will be a submit button. If the user can successfully fill up all of these options then after submitting he/she can login to the system. Then the test case will pass. Otherwise it will fail.

c.Logout: There will be an option of logout. If the user wants then he can logout from the system. If he can logout successfully, that means the test case is passed. Otherwise the test case will fail.

d. Change password: There will be an option of forgot password. If the user forgets his password, he can change it following the criteria given in the options. Then new password will be added to the database. If he can successfully login to the system with using the new password that means the test case is passed. Otherwise the test case will fail.

e. Functionality: All the features of the system should work as intended. There should be no errors and bugs. If the features of the system work following all the criteria that means the test case is passed. If any bugs or errors occur, the test case will fail.

f. User experience: The application has to be easy to use so that people can find it comfortable to use.

g. Security: The application will maintain privacy strictly. The application should be secure against unauthorized access. If the information can easily be hacked that means the test case will fail. If it mains privacy strictly that means the test cass is passed.

h. Performance: The application will be responsive and fast. It is working fast means the test case is passed.

f. Compatibility: There should be no compatibility issues with different operating system .This means we can easily use it with different operating systems (IOS, Mac, Android) If we can use it accordingly means the test case will pass. Otherwise, the test case will fail.

We have to check all these things. If all the test cases perform according to the plan then we can say that the test case is passed.

9. TEST DELIVERABLES

a. Master test plan
b. Individual test plans for each phase of the testing cycle
c. System test plan
d. Unit test plan
e. Integration test plan
f. Acceptance test plan
g. Test scenario
h. Defects.
i. Master test plan

10. STAFFING AND TRAINING NEEDS

The staffing and training needs of a mobile health care application will depend on several factors. They are how much is the size and complexity of the application, the target user population, and the specific functions it offers. In terms of training needs, the staff involved in developing and supporting the application will need to be trained in the specific skills required for the roles. Medical staff will need to be trained in how to develop and maintain the content that is accurate. Technical staff will need to be trained in mobile app development. Overall, the staffing and training needs of a mobile healthcare application will be significant, but the investment in these areas will be essential to ensure the application is successful.

11. RESPONSIBILITIES

Mobile Health Application has certain responsibilities. They are:

a. **Providing Accurate and Reliable Health Information:** The information tha twill be provided will have to be up-to-date and it has to be accurate.

b. **Ensuring Privacy:** Privacy will need to be strictly maintained. This includes appropriate data encryption and measures. Privacy should not be hampered.

c. **Meeting regular requirements:** There are certain standards for development. This includes the system has to be

d. reliable, friendly and accessible to all users.

e. **Maintaining Quality Standards:** There has to be quality standards for the development. So that there can be appropriate resources which will be needed for our application.

f. **Providing care:** The application always focuses on providing accurate care. So it will also be top most responsibility to focus on providing care.

These are the responsibilities to main high quality and standards of the application. If the responsibilities can be maintained strictly we will be able to get the expected output from our application.

Serial	Tasks	Start	Week	Responsibility
1.	Documentation	10-Apr-2023	Week 1	Developer/Tester
2.	Design	24-Apr-2023	Week 3	Testing team lead
3.	Test Plan	08-May-2023	Week 5	Testing team lead
4.	Write code & unit testing	15-May-2023	Week 7	Developer
5.	Integration Testing	19-Jun-2023	Week 11	Testing team lead
6.	System Testing	10-July-2023	Week 14	Testing team lead
7.	Acceptance Testing	24-Jul-2023	Week 16	End User/ Third party organization
8.	Revision/ feedback	21-Aug-2023	Week 20	Testing team lead
9.	Documentation	31-Aug-2023	Week 22	Testing team lead

12. TESTING SCHEDULE

Month	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Documentation	–					
Design	–					
Test Plan		–				
Unit Testing		–	–			
Integration Testing			–	–		
System Testing				–	–	
Functional Testing				–	–	
Resolve Bugs					–	
Acceptance Testing						–

13. PLANNING RISKS AND CONTINGENCIES

Planning Risks:

Requirements Changes: There is a possibility that the requirements for the Mobile Health Application may change during the development process. This can cause delays in the project timeline and increase

project costs.

Technology Limitations: The Mobile Health Application may require the integration of complex technology, which may have limitations or challenges that could affect the project timeline and budget.

Team Issues: Team members may face personal or work-related challenges that affect their productivity and ability to deliver work on time. This can cause delays and impact the quality of the project deliverables.

Contingencies:

Agile Methodology: The Agile Methodology allows for flexibility in project management, and the team can adapt to changes in requirements, scope, and timelines. The Agile Methodology can help to mitigate the risk of requirements changes and technology limitations.

In summary, planning risks and contingencies are an essential part of any project development, including a Mobile Health Application. The key to managing these risks is to have a flexible project management approach, the use of project management tools, and a contingency plan in place.

14. APROVALS

Project Sponsor – Farhan Hasin	Approved
Development Management – Farhan Hasin	Approved
EDI Project Manager – Farhan Hasin	Approved
RS Test Manager – Farhan Hasin	Approved
RS Development Team Manager – Farhan Hasin	Approved
RS Development Team Manager – Farhan Hasin	Approved
Reassigned Sales – Farhan Hasin	Approved
Order Entry EDI Team Manager – Farhan Hasin	Approved